

It intensified on the 7th and 8th, giving rough weather to steamers midway on the Honolulu-California routes, then with less energy entered the coast south of Oregon on the 9th. The second developed near 40° N., 145° W., on the 10th and entered the Washington coast on the 14th, where it quickly died out. It caused high gales, especially in coastal waters, attaining storm force at times on the 12th. The third appeared near 43° N., 138° W., on the 18th and, quickly spreading eastward, caused severe local gales which attained storm to hurricane force in places at sea and off the coast between North Head and Victoria.

Tatoosh Island, Wash., reported winds of 70 or more miles an hour as follows: 73 E. on the 12th, 70 E. on the 15th, 75 S. on the 19th, and 79 S. on the 22d.

In east longitudes storm to hurricane winds occurred over a great extent of sea between Japan and 170° E. on the 6th, 7th, and 8th, in connection with an intense cyclone that had its origin in China as a mere depression on the 3d. Hurricane velocities also occurred on the 10th in the vicinity of 35° N., 165° E.

There were no cyclones in Mexican coast waters this month. Strong to severe northers, however, blew over the Gulf of Tehuantepec on several days, attaining the force of a whole gale on the 17th.

The prevailing wind direction at Honolulu was from the east, with konas occurring on four days. The maximum velocity was at the rate of 32 miles an hour from the northeast on the 17th.

Fog was more prevalent than usual for the month in middle latitudes from the one hundred and eightieth meridian to the American coast, and on several days during the last decade extended as a vast though broken sheet between these boundaries, especially along the fortieth to forty-fifth parallels. There was more fog than usual over the eastern half of the Honolulu-California routes, and also, for this time of year, to the south and southwest of the Aleutian Islands.

NOTE.—In the review of North Pacific weather for August, 1927, it was noted that a moderately intense cyclone occurred off the Mexican west coast from the 7th to the 10th. A recently received report from Capt. G. S. Dexter, of the American steamer *Chilsco*, shows that the storm was much more violent than had previously been suspected, as this vessel encountered hurricane winds, first from the north, then from the southwest, on the 9th, while in and near 17° 47' N., 106° 21' W. Captain Dexter observed that "it gave much less warning than the hurricanes do in the Atlantic and Caribbean Sea."

CYCLONE OF THE ARABIAN SEA

Mr. B. C. Jackson, chief officer and observer of the British S. S. *Khosrou*, Capt. F. Beattie, Calcutta to Karachi, reports that on November 12, 1927, the *Khosrou*

was involved in a tropical cyclone of some intensity, the highest wind force experienced being 10, from the NE. by N., in 19° 30' N., 70° 15' E. According to official radio reports received from Colombo and Bombay by this vessel, the storm originated on the 11th near 13° N., 66° E., and was heading in a northeasterly direction. It intensified on the following day, when central near 17° N., 70° E., and on the morning of the 13th, now traveling east-northeast, passed into the Indian coast about 60 miles south of Bombay.

TYPHOONS AND DEPRESSIONS

TWO TYPHOONS IN THE FAR EAST IN NOVEMBER, 1927

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There were only two well-developed typhoons in the Far East during November. Both were formed and remained in the Pacific, only one of them having influenced the weather of the Philippines.

The first of these typhoons was probably formed on the 17th to 18th about 200 miles to the west of Guam. It moved westward until the early morning of the 21st, when it inclined northwestward about 200 miles to the east of San Bernardino Strait. In the early morning of the 22d it recurved to ENE. 120 miles to the east of northern Luzon.

The second typhoon was shown on our weather map of the 24th, 6 a. m., to the SSE. of Guam near 146° longitude E. between 6° and 7° latitude N. It moved WNW. and passed close to the south of Yap, where winds from the northeast quadrant, force 9 to 10, were observed. We do not know as yet the barometric minimum recorded in that station. The center must have passed at about 11 a. m. of the 25th. From the early morning of that day the typhoon was inclining gradually more and more to the north until in the afternoon of the 26th and on the 27th it moved practically northward. The United States Army transport *Thomas* was about 50 miles to the east of the center, the winds blowing with force 7 to 8 from the east quadrants, and the barometric minimum being 29.42 inches (747.27 millimeters), gravity correction not applied, at 4 p. m. of the 26th.

Lack of sufficient observations prevents us from giving as certain the track of this typhoon after the 27th, but it would seem probable that it was the same that appeared west of the Bonins on the 29th, and, therefore, it must have inclined to NNE. on the 28th and north-east on the 29th, when it passed 150 miles to the north-west of the Bonins.